

CLAIMS

1. Viscous aqueous or hydroalcoholic liquid compositions, buffered or not, intended for the production of films for the manufacture of soft capsules, wherein gelatinization thereof is obtained extemporaneously starting with thickening agents that exhibit the unique property of gelatinizing instantly upon contact with complexing solutions, the proportion of which in the medium exceeds 2%, the elasticity of the films being obtained by introducing or not introducing a plasticizing agent, decomposition thereof being controlled by incorporating or not incorporating a surfactant or a polysaccharide, and preservation thereof being ensured or not ensured by the addition of preservatives, thus allowing it to contain oily and/or aqueous solutions.

2. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 1, wherein the thickening agents are the gum arabics and their derivatives, the lambda carrageenans, the pullulan gums and their derivatives, the rhamnan gums and their derivatives, the wellan gums and their derivatives.

3. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 1, wherein the concentration of thickening agents is between 2% and 80% by weight, relative to the final weight of the preparation.

4. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 1, wherein they comprise a combination of two or more thickening agents.

5. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claims 1 and 4, wherein the proportion of the thickening agent or agents in the combination varies from 10% to 90% by weight, relative to the total weight of the thickening agents.

6. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 1,

wherein the proportion of the alcohol phase in the dissolution medium of the thickening agents varies from 10% to 90% by weight, relative to the total weight of the dissolution medium.

7. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 1,

wherein solubilization of the thickening agent is obtained by the introduction of alkaline or alkaline-earth ions.

8. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claims 1 and 7,

wherein the proportion of alkaline or alkaline-earth ions varies from 0 to 50% by weight, relative to the final weight of the preparation.

9. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claims 1 and 8,

wherein the alkaline or alkaline-earth ion is introduced in the form of a hydroxide or a salt of hydrochloric, sulfuric, nitric, phosphoric, or citric acid, and derivatives.

10. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 1,

wherein the pH of the aqueous phase of the buffer solution of the dissolution medium for the thickening agents varies from 2 to 12.

11. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 1,

wherein the buffered aqueous phase comprises one of the pairs: hydrochloride acid/sodium chloride, hydrochloric acid/potassium phthalate, hydrochloric acid/glycine, citric acid/citrates, citric acid/sodium hydroxide, lactic acid/lactate, monosodium phosphate/disodium phosphate or monopotassium phosphate/dipotassium phosphate, bicarbonate/carbonate, potassium diphthalate/hydrochloric acid.

12. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 1,

wherein the plasticizing agent belongs to the class of the polyols, of the type: glycerol, sorbitol, maltodextrins, dextrose, mannitol, xylitol, lactitol, propylene glycol, polyoxyethylene glycol 400 to 6000, natural and semi-synthetic glycerides, and their derivatives.

13. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 1,

wherein the proportion of plasticizing agent varies from 0 to 50% by weight, relative to the total weight of the preparation.

14. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 1,

wherein the surfactant providing control of the decomposition of the film belongs to the ionic, nonionic, and amphoteric classes of surfactant.

15. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 1,

wherein the surfactant content varies from 0 to 20%.

16. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 1,

wherein the surfactant providing control of the decomposition of the film belongs to the ionic, nonionic, and amphoteric classes of surfactant, and is combined with starch-type disintegrating agents.

17. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 1621,

wherein the disintegrating agents are soluble potato, corn, rice, manioc, wheat starches that have or have not undergone chemical or physical transformations.

18. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 16,

wherein the content of starch and derivatives is between 0 and 50% by weight, relative to the total weight of the preparation.

19. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 1,
wherein preservative and/or coloring adjuvants are introduced.

20. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 23,
wherein the preservative content ranges from 0.01 to 10% by weight, relative to the total weight of the preparation.

21. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 19,
wherein the coloring agent content ranges from 0.01 to 5% by weight, relative to the total weight of the preparation.

22. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 1,
wherein the concentration of solid matter is between 10% and 80% by weight, relative to the final weight of the composition.

23. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 1,
wherein extemporaneous gelatinization thereof is induced by saline solutions of mineral or organic acids, or by hydroalcoholic solutions, or by a combination of the two solutions.

24. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claims 1 and 23,
wherein gelatinization thereof is brought about by hydroalcoholic solutions containing ethanol, methanol, propanol, isopropanol, or butanol.

25. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claims 1 and 23,

wherein gelatinization thereof is obtained for an alcohol content between 10% and 90% by weight, relative to the final volume of the hydroalcoholic complexing solution.

26. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claims 1 and 23,

wherein gelatinization thereof is brought about by saline solutions of salts of mineral or organic acids, and by hydroxides, oxides, and carbonates of calcium, barium, titanium, zinc, aluminum, sulfur, and silicas.

27. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claims 1 and 23,

wherein gelatinization thereof is obtained for a concentration of salts, hydroxides, oxides or carbonates in neutral, acid, or alkaline solution ranging from 1% to saturation of the medium.

28. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 1,

wherein gelatinization thereof is obtained by spraying of or immersion in the complexing solution, or a combination of the two.

29. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to claim 1,

wherein their gelatinization time in contact with the complexing solutions is between 10 seconds and 10 minutes.

30. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to any of claims 1 to 29,

wherein the films obtained from said viscous aqueous or hydroalcoholic liquid compositions, buffered or not, are lubricated with conventional edible oils or with glycerol esters and polyoxyethylene glycol esters, triglycerides, propylene glycol esters, and their derivatives, or dilute solutions of these various products.

31. The viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to any of claims 1 to 30,

wherein the liquids capable of being contained in the capsules are aqueous and/or oily solutions.

32. A method for manufacturing films from viscous aqueous or hydroalcoholic liquid compositions, buffered or not, according to any of claims 1 to 31,

wherein it comprises:

- producing, at cold temperatures or at a temperature not exceeding 90°C, a pseudo-colloidal solution by dispersion under vacuum of a thickening agent, alone or in combination with other thickening agents, in an aqueous or hydroalcoholic solution, buffered or not, containing alkaline or alkaline-earth ions, a plasticizer, a surfactant, and/or a disintegrating agent;
- maintaining that solution at 25°C while it is stored;
- producing films for soft capsules at a temperature maintained at at least 50°C;
- gelatinizing the film mass by applying the complexing solution by spraying and/or by immersion, either simultaneously on both surfaces of the film or alternately after detachment of the film from its support.

33. The manufacturing method according to claim 32,

wherein it comprises subjecting the gelatinized film to a drying operation in an air stream whose temperature is between -10°C and +70°C.

34. The manufacturing method according to claim 32,

wherein encapsulation of the active ingredients using said films is accomplished by hot welding of the two films under pressure, at a temperature between 50°C and 100°C.

35. The manufacturing method according to claim 32,

wherein it comprises subjecting the produced mass, prior to the gelatinization step, to a vacuum degassing step to eliminate air, which is capable of forming bubbles during production of the films.

36. The manufacturing method according to claim 32,
wherein the produced mass is transferred to the film formation systems either by
simple gravity or under pressure using endless screws or a press.